(2)

(Unclassified Paper)

NAVAL WAR COLLEGE
Newport, R.I.

AEROMEDICAL EVACUATION CONTINGENCY PLANNING

by

Rudy Schwartz
LtCol, USAFR

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: Rudy Schwartz

19 June 1992

Paper directed by
Captain H. Ward Clark, USN
Chairman, Department of Military Operations

Approved by:

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b RESTRICTIVE MARKINGS
2a SECURITY CLASSIFICATION AUTHORITY	3 DISTRIBUTION / AVAILABILITY OF REPORT DISTRIBUTION STATEMENT A: approved for Public Release; distribution is unlimited.
2b DECLASSIFICATION / DOWNGRADING SCHEDULE	
4 PERFORMING ORGANIZATION REPORT NUMBER(S)	5 MONITORING ORGANIZATION REPORT NUMBER(S)
6a NAME OF PERFORMING ORGANIZATION OPERATIONS DEPARTMENT 6b OFFICE SYMBOL (If applicable) C	7a NAME OF MONITORING ORGANIZATION
6c ADDRESS (City, State, and ZIP Code) NAVAL WAR COLLEGE NEWPORT, R.I. 02841	7b ADDRESS (City, State, and ZIP Code)
8a NAME OF FUNDING / SPONSORING ORGANIZATION 8b OFFICE SYMBOL (If applicable)	9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c ADDRESS (City, State, and ZIP Code)	10 SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO / TASK NO / WORK UNIT ACCESSION NO.

11 TITLE (Include Security Classification)
AEROMEDICAL EVACUATION CONTINGENCY PLANNING (U)

12 PERSONAL AUTHOR(S)
Schwartz, Rudolph Carl, Jr., LTCOL, USAFR

13a TYPE OF REPORT	13b TIME COVERED	14 DATE OF REPORT (Year, Month, Day)	15 PAGE COUNT
FINAL	FROM _____ TO _____	1992 June 19	29

16 SUPPLEMENTARY NOTATION A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

17 COSATI CODES		
FIELD	GROUP	SUB-GROUP

18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
Aeromedical Evacuation, Medical, Airevac, Casualties, Patients, Medical Crews, CRAF, Medical Regulating, Strategic Airlift, ASMRO, GTN

19 ABSTRACT (Continue on reverse if necessary and identify by block number) Aeromedical evacuation is an element of the medical regulating system. The whole process of providing medical care to casualties depends on bringing patients, medical professionals, equipment and supplies, and facilities together at the same time and place. All of the resources necessary to accomplish this integration are not within the control of any single commander. Allocation of these resources is influenced by other commanders, national policy, tactical considerations, and enemy actions. Inputs from any one or all of these sources can severely restrict the options available to an operational commander. With the proliferation of weapons of mass destruction the potential for casualties is out of proportion to actual engagements with enemy troops. Aeromedical evacuation plans and organization should be realigned world wide to maximize the effectiveness of the system in response to the commander.

20 DISTRIBUTION / AVAILABILITY OF ABSTRACT	21 ABSTRACT SECURITY CLASSIFICATION
☑ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT ☐ DTIC USERS	UNCLASSIFIED
22a NAME OF RESPONSIBLE INDIVIDUAL CHAIRMAN, OPERATIONS DEPARTMENT	22b TELEPHONE (Include Area Code) 841-3414 / 22c OFFICE SYMBOL C

DD FORM 1473, 84 MAR 83 APR edition may be used until exhausted
All other editions are obsolete

SECURITY CLASSIFICATION OF THIS PAGE

★ U.S. Government Printing Office: 1988—539-612

Abstract of
AEROMEDICAL EVACUATION CONTINGENCY PLANNING

Aeromedical evacuation is an element of the medical regulating system. The whole process of providing medical care to casualties depends on bringing patients, medical professionals, equipment and supplies, and facilities together at the same time and place. All of the resources necessary to accomplish this integration are not within the control of any single commander. Allocation of these resources is influenced by other commanders, national policy, tactical considerations, and enemy actions. Inputs from any one or all of these sources can severely restrict the options available to an operational commander. With the proliferation of weapons of mass destruction the potential for casualties is out of proportion to actual engagements with enemy troops. Aeromedical evacuation plans and organization should be realigned world wide to maximize the effectiveness of the system in response to the commander.

TABLE OF CONTENTS

CHAPTER		PAGE
ABSTRACT		ii
I	INTRODUCTION	1
II	STRATEGIC CONSIDERATIONS	5
III	THE AEROMEDICAL EVACUATION SYSTEM	8
IV	MEDICAL REGULATING SYSTEM	10
V	RESOURCES AND CAPABILITIES	12
VI	COMMAND AND CONTROL	17
VII	RECOMMENDATIONS	20
NOTES		24
BIBLIOGRAPHY		25

AEROMEDICAL EVACUATION CONTINGENCY PLANNING

CHAPTER I

INTRODUCTION

Intertheater aeromedical evacuation (AE) is a relatively recent development in the management of combat casualties. Until the second half of the 20th century army commanders' only requirement of the medical service was to return soldiers to combat if possible. Limited medical technology left a majority of combatants incapacitated by wounds, injury, or disease. Commanders' strategic planning for medical contingencies involved provisions for sufficient reinforcements to replace disabled individuals.

Ineffective soldiers were removed from the battlefield to prevent further injury, however the level of medical knowledge and care available to the general population was unable to repair damaged bodies or cure common diseases. The universal lack of medical expertise made evacuation of battlefield casualties inconsequential to the quality of treatment and preservation of life.

From a practical standpoint, evacuation of patients as retrograde cargo using supply transportation reduced the logistical requirements of the forces in the field by the amount the disabled individual used. Since quality of care was not a consideration, evacuation to one place was as good as any other place. An army that was maneuvering need only leave the casualties with local inhabitants.

Today, commanders must still plan to provide for adequate medical care to return troops to combat if possible, schedule sufficient reserves to replace casualties, remove the sick and the injured from the battlefield, and transport ineffective personnel to rear areas to reduce demands on forward sustainment efforts. Improved technology in medicine and methods of transportation brings a new additional twist to casualty planning. Commanders cannot ignore the opportunity to reduce deaths and otherwise mitigate the effects of wounds, injuries, and disease by rapid evacuation of victims to locations where appropriate care is available.

The emotional impact of casualties and their subsequent humanitarian disposition directly affects the will of the people to continue to support a violent solution to international disputes. In our democracy, political considerations may elevate the control of casualties to a primary mission for a theater Commander in Chief (CINC). This possibility is increased by the proliferation of mass destruction weapons and their possible use in remote regional conflicts.

The technological advances in air travel and medical care must be carefully implemented and integrated into the process of warfare. Historically it has taken time for commanders to understand the potential and limitations of technological advances. The formations and tactics used in combat have changed in response to development of the rifle with its long range and

accuracy, the tank with its mobility and armor, and the nuclear bomb with its lethality and moral implications.

In each of these examples new strategies, doctrines, and concepts had to be developed to maximize the effect of the new system and provide for its prolonged serviceable with maintenance and logistic support. Throughout history theater commanders have been challenged by sustainment as in the case of Hannable trying to feed his elephants in the Alps and Napoleon's forces foraging for fodder to feed his horses on the march to Moscow. The tank has increased the sustainment requirements for petroleum, oil, and lubricants (POL); ammunition; and spare parts.

It is easy to see that elephants, calvary horses, and tanks generate completely different demands on logistic systems. It is not as obvious that the optimum utilization of aeromedical evacuation is intrinsically different than surface evacuation or intratheater care in scope, impact, distance, and capability. Furthermore, the relationship between deployment cargo and retrograde patients and cargo eclipses conventional airlift calculations of space and weight.

Familiarity with the aeromedical airlift system that operates every day throughout the world contributes to a false sense of the systems capability and responsiveness. Routine AE missions operate from established locations with predictable loads based on the distribution of the military population. Airlift is available and sufficient to meet local surge requirements. The process of providing medical care to

casualties depends on bringing patients, medical professionals, equipment and supplies, and facilities together at the same time and place. All of the resources necessary to accomplish this integration are not within the control of any single combat commander.

A regional conflict may not be near established medical or airport facilities. The volume of patients will be variable, and airlift will be occupied in the deployment of troops, equipment, and supplies. The complexity and impact of moving casualties requires aeromedical evacuation plans and organization be realigned world wide to maximize the effectiveness of the system in response to the commander.

CHAPTER II

STRATEGIC CONSIDERATIONS

The national military strategy and the total force concept shape and bound the latitude of the CINCs' deliberate planning options. The principles of forward presence and crisis response simultaneously expose forces to risk and prevent prepositioning of resources to cope with heavy casualties. The Vietnam War raised the expectations of the American public regarding the level of care available in the theater of operations, and the quick return of seriously injured troops to the Continental United States (CONUS). The facilities in the theater were built up over several years and exceeded capabilities of many nations in sophisticated equipment and size of facilities. The resupply of the theater was not time constrained, nor was it subject to interdiction.

Abundant airlift and sealift in established quantities over long periods of time allowed for coordination of demands on transportation resources. Proximity of large modern U.S. medical facilities in Japan and the Philippines were ideal reservoirs for fluctuations in flow with no denigration in care. As a consequence of the propitious conditions, AE between Vietnam and the CONUS was flexible, productive, and routine.

The current national military strategy suggests an entirely different scenario of time constrained deployment, random geographical location, and intense competition for transportation resources. It is extremely unlikely that future wars will offer

the stable demands on logistics or closeness of U.S. medical facilities that would compare with Vietnam, our last war with significant numbers of casualties.

The total force policy affects AE in two ways. First, the likelihood that casualties will be reservists is increased. Reductions in active forces will necessitate augmentation by reserves for all but the most limited levels of conflict. The political base of the National Guard and Reserve organizations will expedite responses to poor medical care or high death rates of recalled reservists to the highest levels of government.

Secondly, 97% of the AE medical crews are reservists. Furthermore, reservists constitute 18% of medical service personnel, 50% of strategic airlift crews, and 71% of aerial port personnel.[1] This means that the CINCs' ability to airevac casualties out of the theater, regardless of the status of the injured, depends upon activation of reservists. The legal authority to activate the reserves rests with the National Command Authorities (NCA) and is completely outside the control of the CINC.

Also outside the control of the CINC is the proliferation of weapons of mass destruction. With the demise of the USSR and the availability of advanced weapons on world markets, it is possible that a country will possess weapons with range and lethality exceeding its resident technology base. A desperate preemptive strike with nuclear, biological, or chemical weapons, or a deep strike into staging areas may result in significant U.S.

casualties. These injuries would occur before combat begins, and be totally disproportionate in quantity to the combat capability of the adversary.

The medical planning module (MPM), a part of the automated data processing (ADP) system for planning, allows the CINCs' medical staff to project the number of casualties anticipated based on expected enemy engagements and the scope of operations. The historical number of casualties that will require hospitalization is 40 per 1000 combatants per day.[2] A lucky enemy SCUD shot during the initial build up phase of a U.S. deployment cannot be planned and could exceed all AE capabilities in both time and capacity. Arms control is the only alternative to the catastrophic effects of weapons of mass destruction.

The final limitation imposed at the strategic level of command is the theater patient evacuation policy. This is determined by the Secretary of Defense with the advice of the Joint Chiefs of Staff (JCS) and the recommendation of the theater CINC. This policy stipulates the maximum number of days between a soldier's admission to a hospital and the time he or she departs the theater.[3] The CINC is consulted in this decision and may influence it, but the policy is set at the NCA level.

CHAPTER III

THE AEROMEDICAL EVACUATION SYSTEM

The aeromedical evacuation system operates around the clock, around the world. The system provides medical care during transport on a routine basis for active duty and retired military members of all services and their dependents as well special transport for humanitarian purposes of anyone, U.S. citizen or foreign nationals, with direction and authorization by the Department of Defense. The system provides round-trip transport from the patients' nearest suitable airfield to an airfield nearest the destination hospital or convalescent facility. It provides a link between medical facilities where specialists are located within the CONUS. The purpose of the treatment may be for injuries, illness, disease, or preventive care.

In wartime the AE system continues to provide the same service to the maximum extent possible with the addition of battlefield casualties. The system is a customer of strategic airlift, owned and controlled by the commander of the U.S. Transportation Command (USCINCTRANS), and must compete for space with deployment and retrograde cargo. AE has a Joint Transportation Board (JTB) transportation priority of 3B.[1]

The transportation priority is intended for loads destined for a theater of operation and not for prioritization of retrograde cargo. Desert Storm revealed for the first time a high demand for retrograde cargo space. Sophisticated weapons require more exchanges of components than simpler systems and

maintenance on these "black boxes" is done at CONUS depots. Planners had previously always had excess retrograde space and specific problems had been worked out on an ad hoc basis. A time constrained decision was made to apply the same priority system to retrograde cargo as deployment cargo. The criticality of time in patient care warrants a reevaluation of the priority for retrograde patients, in my opinion.

Each CINC owns intratheater airlift assets including C-9 Nightingales, dedicated AE airframes; however, only US Commander in Chief, Europe (USCINCEUR); US Commander in Chief, US Pacific Command (USCINCPAC); and Forces Command (FORSCOM) have the C-9s. Reallocation of C-9s would require JCS action if the contingency is not in one of those three theaters. Within an area of responsibility (AOR) the CINC has operational control (OPCON) of the AE crews physically located within his theater.

CHAPTER IV

MEDICAL REGULATING SYSTEM

The AE system is a part of the medical regulating system. The medical regulating system matches sources of treatment with the medical care requirements of patients within time and space limits. The time factor is most critical since medical treatment of life-threatening injuries is most successful if begun within six hours of the injury. In this six hour window lives are saved in an operating room (OR). Not every OR has a specialists to handle every time of injury. In the first echelon of medical care on a battlefield the medical regulators first priority is to move the injured to the nearest available OR with a specialist that can treat the specific injury. That OR may be near the front or the patient may have to be brought further to the rear because of the type of injury or the availability of an OR.

Following the life-saving operation, the patient must be monitored until their condition stabilizes. The most forward ORs will have perhaps 20 beds for monitoring post-operative patients. Following stabilization, the patient must be moved to the rear to make room for new patients. A field hospital with six ORs will have 500 beds. The worst possible circumstance is to have incoming wounded and no ORs available or no beds available. Thus as field facilities become increasingly filled up, the AE system has to open the back door and move patients to the communication zone (COMMZ) facilities or back to CONUS. The system is pushed by the inflow of casualties from the front. It is the CINC's

ultimate responsible within his AOR to provide the resources to put the system in place and keep the front door of the system open by evacuation out the back door.[1]

As the number of casualties increase the problem pours out of the combatant CINC's AOR and enters a supporting CINC's AOR. Medical regulating must find a match for each move to an empty bed in a facility that can provide the type of care required by the patient.

CHAPTER V

RESOURCES AND CAPABILITIES

Four elements are required in the same place at the same time to provide adequate medical care. The patient, the medical professional, and the equipment all require transportation resources to arrive at a fixed facility. If the area of conflict is not developed, even the facility may require transportation assets. During AE the facility is the airframe itself, however, this facility requires an airport from which to operate. These elements are listed in order by priority. The medical community uses triage to determine who is a patient and who is not. Some injuries require only first aid and some wounds are so serious that no amount of medical treatment can forestall death. This system is an iterative process with constant evaluation of a patient's condition to determine the next step.

Medical professionals include doctors and nurses as well as medical technicians. The extent of specialization within medicine has reduced the interchangeability of doctors and nurses and affects the options of the medical regulators as to appropriate placement of patients. A head injury patient needs to be seen by a neurosurgeon and so forth. Because doctors use many sophisticated and sometimes large pieces of equipment, it is much more efficient to bring the patient to the doctor than the doctor to the patient whether within the theater, the COMMZ, or the CONUS.

Medical equipment as used here includes supplies since much of it disposable or not reusable for sanitary reasons. Many of the consumable items used in military medicine are packaged in kits that also contain hardware. Oxygen bottles require refilling, bandages are replaced, and blood supplies must be replenished. Consumption of medical supplies in a variable demand environment can result in the need for additional AE to take the patients to the supplies if the supplies are not available. Most medical equipment and supplies are time sensitive for a positive patient prognosis.

The facilities for medical care are expensive so that most locations do not have excess hospital beds and use of nearby allied nations facilities may conflict with indigenous care. A 500 bed field hospital with 6 ORs requires one complete container ship and 60 trucks working for 2 days to transport it over land to a location. Hospital ships provide 12 ORs with 1000 bed capacity, however, accessibility to the AOR by sea is a limitation for their use. The difficulty in developing intratheater facilities resulted in AE of casualties from Panama during Just Cause to San Antonio, Tx.[1]

Movement of patients requires specialized equipment at both ends of the trip and en route. Patients cannot be put on a plane and met at the other end. All of the elements that had been assembled for the patients medical care in the AOR, must leave the AOR with the patient. This includes medical professionals and equipment essential to en route care. The irony of the

situation is that the sooner a patient needs to move, the more resources required to make the move safe. Less stabilized patients need more professional attention.

The aeromedical staging facility (ASF) is the interface between the AOR facilities and the AE system for both intertheater and intratheater airlift. The ASF is not very large and is easily transported; however, its job is indispensable. The loading of patients is a lengthy procedure which can become a choke point in a busy air terminal. The usual C-141 ground time of 2.5 hours can expand to 5.0 hours when the plane must be reconfigured and loaded with patients. Without the professional staff the ASF provides, the ground times can be much longer and patient care deteriorates. The loading process is especially difficult because of the minimum attention given to individuals and the exposure to elements such as heat and cold when in transition to the aircraft.

The aircraft used for AE are either reconfigured strategic assets, or dedicated aircraft including the Civil Reserve Air Fleet (CRAF) planes. Strategic aircraft have some specific problems carrying alternate loads of cargo and patients. The support equipment and medical crews are not carried all the time by strategic aircraft. A C-141 would need 3 of 11 pallet positions to carry the stanchions, litters, and inflight medical equipment required to carry a full load of casualties on the return trip. The medical crew must be prepositioned at the destination so they are rested and prepared to provide medical

care on the return trip. The current plans do not include procedures for a revolving deployment of medical crews that have departed an AOR on an AE mission. Medical crews must get back to the AOR with their inflight equipment as best they can.[2]

Another constraint on the use of retrograde strategic lift is the medical regulation of the casualties. It is likely that the destination of the aircraft for picking up deployment assets will not coincide with the destination of the patients. AE resources inside and outside the AOR of the supported CINC will have to be dedicated to redistribution of casualties or the flow of the deployment will be disrupted. Returning aircraft will have to make intermediate stops to offload patients and then reposition to pick up deployment cargo. This additional flying time consumes time and crews that may not be available.

CRAF aircraft are dedicated to the AE mission when they called to service. The only civilian aircraft currently developed for conversion from commercial service to medical evacuation configuration is the Boeing 767. These aircraft must be reconfigured by a contractor and a red cross is painted on the tail. This red cross cannot be applied to multi-use aircraft with the result that retrograde patients are not fully protected by geneva convention articles en route since enemy aircraft cannot identify the transport as an AE mission. The time required to convert the CRAF aircraft is only a factor after the much more questionable problem of taking control of the airframe.

The 767 is a very modern and thus most efficient and profitable aircraft in U.S. carriers' fleets. The air carriers are not placing many of the airframes at risk voluntarily. Currently there are 44 conversion kits ordered or delivered for the 767, but only 14 aircraft have been committed by air carriers for FY93.[3]

The aircraft committed are in Stage II and Stage III of CRAF which require NCA initiation. Stage III requires declaration of a national emergency at which point there would not be a legal problem taking 44 767s for conversion. There is a serious economic and political problem, however. The air carriers with 767 assets would bear a large financial burden competing without those assets. Furthermore, the time required to arrive at the political decision to commandeer the 767s, modify them for AE missions, and preposition ground support equipment for the loading and offloading of these large wide-body aircraft, makes their use in a crises extremely difficult. The factors that affect the implementation of CRAF assets are completely beyond the control of any CINC.

CHAPTER VI

COMMAND AND CONTROL

There is little difference between the peacetime and the wartime command and control of AE resources. All activated CRAF aircraft belong to USCINCTRANS in wartime. The dedicated AE aircraft, C-9s belong to the CINC in the area they are located except in the CONUS where they are under the command of Air Mobility Command (AMC). AMC is a subordinate command of USTRANSCOM and the commander of USTRANSCOM is also the commander of AMC. Medical crews, hospitals, and intratheater airlift are under the command of the CINC in who's area these resources are located. The management of the system on a global basis is vested in the Armed Services Medical Regulating Office (ASMRO). Each CINC normally establishes a Joint Medical Regulating Office (JMRO) for regulating casualties within an AOR. The information from area management offices is accessible to the ASMRO where the world wide flow of patients is monitored. ASMRO regulates within CONUS and from overseas to CONUS.

The problem with the organization is that AE is a customer with responsibilities and is dependent on others for the authority to use the physical assets needed to fulfill its functions. The ability to solve problems at choke points is dependent on ad hoc relationships between all levels of command. The concept of a Global Transportation Network (GTN) is under development at USTRANSCOM to overcome these conflicts. Medical regulating within GTN will be based on a global reservation

system. Commands at various levels will offer resources and the GTN will utilize those assets. The success of this system is dependent on development of the software to deal with the volume of data and the willingness of resource owners to play fair with the system. This skeleton of functional control has the potential to increase the efficiency of the AE system. The lack of dedicated airframes will probably be the weak link in the chain.

There are four critical elements to the process of providing AE service to casualties. First, the OR and its peripheral care facility determine the demand on the AE system. If casualties are not treated they become fatalities and are no longer a factor in the AE system. An OR can generate ten post operative patients per day.[1] Completing the calculation, it is evident that a 500 bed facility with six ORs will handle about 8 days worth of casualties. (500/(6x10)=8.3) Commanders of medical facilities begin to get nervous when facilities are 75% of capacity which translate into about six days of operation before the hospital commander wants to move patients to insure open beds for new arrivals. The ORs are the generators of demand, and they are completely under the control of the CINC.

Secondly, the interface between the AOR medical facilities and the AE system is under the control of the CINC. The position of the patient, the medical professional, the equipment and the facility can be controlled in a theater. The movement of

patients to a suitable airport is also dependent on assets directly under the control of the CINC in the AOR.

Third, the resources of the receiving area, either the COMMZ or the CONUS must be flexible to meet the individual needs of patients. The cost and availability of treatment specific professionals and equipment demands concentration of these resources. The destination options are under the control of supporting CINCs.

Fourth, and most important, is the airframe with its configuration of equipment, supplies, and medical crew. This is the most difficult problem to solve and it is the moving part. Control of these assets are under USCINCTRANS, various theater CINCs, and the commander of AMC. The solution recommended by USTRANSCOM is the GTN for coordinating the move.[2] The question remains as to who settles disputes and sets priorities since the same airframes are essential to deployment efforts.

CHAPTER VII

RECOMMENDATIONS

The AE system can be more elastic and responsive than it is now. ASMRO's responsibility should be expanded to include control of medical regulating between theater JMROs. The GTN is a powerful tool that will give USTRANSCOM the ability to get a big picture in detail of all cargo movements. There is no need to delay global medical regulating until this system is on line. ASMRO monitors all patient movements now through the reporting system it has in place. The only ingredient missing organizationally is an established responsibility and authority for ASMRO to direct all evacuations into or out of an AOR regardless of destination or origin.

Opponents of this type of organization contend that the system works as it is, and they cannot envision a situation where lives will be lost due to the current organization structure. Problems today are handled in an ad hoc fashion, coordinated by the people executing the plans. As long as the numbers of patients are below the threshold of capacity, problems can be worked out as they are now. However, substantial numbers of casualties due to weapons of mass destruction may cause the NCA to elevate medical evacuation to a primary objective. Furthermore, remote or distant locations will have a lower threshold of capacity than areas where the US has concentrated its planning in the past. The resources within a CINC's AOR can be overtaken by the push of casualties. In anticipation of these

extremes, current planning allows for the reevaluation of the situation and rededication of resources in the execution phase of each plan.

The issue appears to be the determination of sufficient and optimum. Realigning the authority and responsibility now does not diminish the current capability and will exercise the system in a configuration that could meet expanded demand. The realignment of authority will also improve responsiveness of the system. AE as a national resource may be required in a noncombatant evacuation operation (NEO) preceding a military operation. In this situation, prior to deployment of troops with their self contained medical capabilities, the demands on the system will be in direct conflict with deployment. In this case, the NCA could turn to USCINCTRANS and insure the optimum use of the AE system from the very beginning. As a single manager, exercising control world-wide, day to day, USCINCTRANS, through the ASMRO, can foresee choke points in advance and improve the service to a supported combatant CINC.

The problem is amplified when the allocation of resources becomes an issue. The organization restructure is only part of the solution. Directing placements of patients is ineffective unless the resources, ie. airframes, are available to complete the transfers. Advocates of the current system contend that airframes could be apportioned for planning in the Joint Strategic Capabilities Plan (JSCP), allocated in the Warning Order, or settled ultimately by the JTB during execution. During

desert storm a conflict developed concerning priorities for retrograde cargo. An aircraft on the ramp in the AOR was needed for airevac and scheduled to capacity with outbound aircraft engines. A call was placed through channels to the JTB where it was determined that retrograde cargo was not prioritized. Demand for retrograde space had never been a problem before. The JTB directed the aircraft be used for the AE mission.[1]

Again, solving problems as they occur is sufficient, but avoiding problems is optimum. A serious detriment to responsiveness of the AE system is the lack of dedicated airframes. The C-9s are two engine aircraft with limited range and no trans-oceanic capability. All strategic aircraft have integral hardware for limited AE capability if medical crews are available. Current plans stipulate that strategic assets can be dedicated to AE if the situation warrants.

I suggest that a limited number of strategic C-141 aircraft be dedicated to AE missions in all contingency plans. These aircraft would provide the capability to reposition medical crews and equipment anywhere in the world. Airframes designated for the AE system would not be included in any flow planning for cargo, although opportune cargo such as critical parts could still be carried. These aircraft could also be used for intratheater movements of patients while under the control of USCINCTRANS in anticipation of potential choke points. The number of dedicated airframes could be increased if necessary as the situation develops. This procedure is established under

present plans. Perhaps there is a natural reluctance to forfeit resources in the planning stage before any casualties occur. Failure to do so, however, may be the Achilles Heel of an otherwise successful operation.

NOTES

CHAPTER II

1. U.S. Dept. of Defense, The Annual Report of the Reserve Forces Policy Board (Washington: 1990), p. 36.

2. Interview with Commander Gary Breeden, Senior Medical Staff, U.S. Transportation Command, Scott Air Force Base, Il: 20 April 1992.

3. Military Airlift Command, Wartime Aeromedical Evacuation Control Center (AECC) Operations Guide. Draft (Scott Air Force Base, Il: 1988), p. 6.

CHAPTER III

1. Interview with Major Erin Cavit, Major Charles Tupper, Captain Kevin Riley, and Captain Patricia Shelton, Military Airlift Command Surgeon's staff for training and deliberate planning, Scott Air Force Base, Il: 17 April 1992.

CHAPTER IV

1. Interview with Commander Gary Breeden.

CHAPTER V

1. David M. Branham, "A Fitting Show of Support," Citizen Airman, March 1990, p. 27.

2. Interview with MAC Surgeon's staff.

3. Military Airlift Command, Civil Reserve Air Fleet-Aeromedical Evacuation, Point Paper (Scott Air Force Base, Il: April 1992), p. 2.

CHAPTER VI

1. Interview with Commander Gary Breeden.

2. Ibid.

CHAPTER VII

1. Interview with MAC Surgeon's staff.

BIBLIOGRAPHY

Branham, David M. "A Fitting Show of Support." Citizen Airman, March 1990, pp. 26-27.

Creamer, Ian. "Casualty Evacuation in the Central Region." NATO's Sixteen Nations, December 1989, pp. 62-65.

D'Agostino, Janet. "Reservists the Pillars of Aeromedical System." The Air Force Times, 24 June 1991, pp. 6,16.

Departments of the Army, the Navy, and the Air Force. Medical Support in Joint Operations. FM 8-8, NAVMED P-5047, AFM 160-20. Washington: 1972.

Epifano, Anthony J. "Sky High." Citizen Airman, November 1990, pp. 20-23.

Eiseman, B. "The Next War: A Prescription." U.S. Naval Institute Proceedings, January 1975, pp. 33-40.

Interview with Commander Gary Breeden, Senior Medical Staff, U.S. Transportation Command, Scott Air Force Base, Il: 20 April 1992.

Interview with Major Erin Cavit, Major Charles Tupper, Captain Kevin Riley, and Captain Patricia Shelton, Military Airlift Command Surgeon's staff for training and deliberate planning, Scott Air Force Base, Il: 17 April 1992.

Joint Chiefs of Staff. Joint Operation Planning System. JCS PUB 5-02.4. Washington: 1988.

Lorenz, Michael. "Patients and perseverance." Citizen Airman, November 1990, pp. 16-19.

Lund, Paul W. "Medical Support for Future Combat: No More Vietnams." Naval War College Review, Spring 1992, pp. 80-92.

Military Airlift Command. Wartime Aeromedical Evacuation Control Center (AECC) Operations Guide, Draft. Scott Air Force Base, Il: 10 November 1988.

Military Airlift Command. Civil Reserve Air Fleet-Aeromedical Evacuation. Point Paper. Scott Air Force Base, Il: April 1992.

Rhodes, Jeffrey P. "Medevac." Air Force Magazine, July 1990, pp. 84-89.

Smith, Arthur M. "The Influence of Medicine on Strategy." Naval War College Review, Spring 1988, pp. 22-36.

Smith, Arthur M. and Llewellyn, Craig H. "Tactical and Logistical Compromise in the Management of Combat Casualties: There is no Free Lunch!" Naval War College Review, Winter 1990, pp. 53-66.

U.S. Armed Forces Staff College. The Joint Staff Officer's Guide 1991. AFSC PUB 1. Norfolk, VA: 1991.

U.S. Dept. of Defense. The Annual Report of the Reserve Forces Policy Board. Washington: 1990.